

Beaver Lake Monitor

A publication of the Beaver Lake Management District Advisory Board



Volume 3, Issue 1



March 2000

In this issue

Survey results 2

The nature of nonpoint

pollution 3

Should the Lake Management District (LMD) continue?

As the LMD enters its fifth and final year under its current authorization, the LMD Board is asking itself—and you—should the LMD continue? Here is some basic information that might help you with your decision about the LMD's future.

What is the Lake Management District?

The Beaver Lake LMD is a voter approved special purpose taxing district designed to carry out four tasks within the lake watershed. These tasks are: (1) construction site monitoring to reduce runoff from new development to the watershed's wetlands and lake; (2) community education (this newsletter for example); (3) stormwater facilities monitoring to determine if facilities are functioning properly; and (4) stream and lake water quality monitoring to evaluate the effectiveness of LMD and regulatory programs in preserving Beaver Lake.

What has the LMD accomplished in its first four years?

First and foremost, voters' approval of the LMD resulted in King County implementing the most rigorous surface water quality regulations in our watershed. The Beaver Lake standard is more than double the basic water quality

standard set for the rest of the County. The existence of our LMD demonstrates local commitment to the preservation of our watershed and resulted in the City of Sammamish adopting those tough King County standards for Beaver Lake during last year's incorporation. These regulations will be increasingly important as the pace of development in the watershed accelerates over the next five years.

In addition, the LMD's ongoing monitoring program and its update of the Watershed Management Plan this year will continue to provide the scientific support to this community's efforts to preserve the water quality of our wetlands and lake. Without this information, the community would not have been able to advocate for the best mitigation of the impacts associated with new watershed development. The existence of the LMD has also resulted in a much higher level of on-site inspection for erosion control in new development than would have happened otherwise. The Board believes this has resulted in significant protection for the wetlands and lake.

How is the LMD paid for?

In 1995 property owners in the
(continued on page 3)



Survey results:

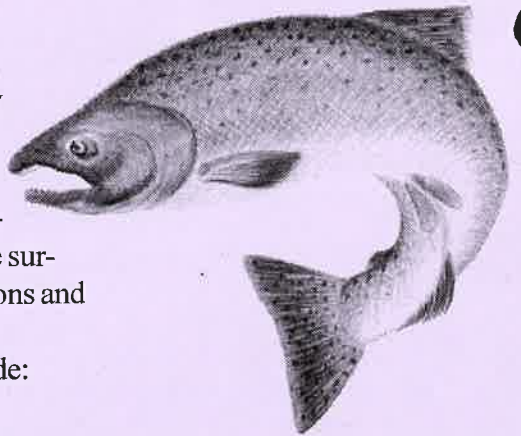
Beaver Lake residents value the lake for many activities

In 1997 and again in 1998, King County surveyed residents of the Beaver Lake waterfront and watershed residents as part of a larger Lake Sammamish watershed survey. The primary purpose of the surveys was to evaluate resident's perceptions and behaviors regarding water quality.

Highlights from the two surveys include:

- Only one-third of residents (waterfront and watershed combined) regularly participate in viewing, swimming, fishing, or boating activities around the lake. However, 70 percent of residents felt it was important to be able to do these activities.
- Three-quarters of all residents are aware that phosphorus is related to water quality problems in the lake.
- Residents largely attribute their water quality problems to development/construction runoff, fertilizer/pesticide runoff from lawns, and waterfowl feces.
- Over half of residents fertilize their lawns using either an organic or a chemical fertilizer.
- Only one-quarter of Beaver Lake residents have heard of the term nonpoint pollution (see article page 3) but of those residents three-quarters could correctly define the term.

Not surprising, survey results suggest that residents value the lake for many recreational activities. Although residents know that phosphorus contributes to water quality problems in the lake (specifically strong fertilizer/pesticide runoff from lawns contributes to this problem), over 50 percent admit to using fertilizer for their lawns, contributing to nonpoint pollution of the lake. Food for thought...how do we translate our knowledge of pollution sources into everyday behavior change? 🐾



Boating is a favorite activity on Beaver Lake.



Residents value viewing wildlife, swimming, and fishing, also.



Beaver Lake is a recreational paradise.

The nature of nonpoint pollution

Have you ever wondered where all the particles go from the burning of oil, gas, or wood? How about the chemicals found in fertilizer and pesticides that are used in agriculture and the maintenance of lawns? These particles and associated chemicals become part of the nonpoint pollution "stew" that contaminates our lakes, streams, and other waterways. Let's begin by reviewing the definition of nonpoint pollution and then learn how pollutants are washed into our lakes and streams affecting water quality.

Pollution defined

Water quality is impacted by both point and nonpoint sources of pollution. Most of us are familiar with pollution that originates from a single source like a sewage treatment plant or other industrial discharges. These single source or point discharges are easily identified, measured, and regulated. In contrast, nonpoint pollution is a mixture of pollutants that are washed out of the atmosphere or off of a variety of surfaces to nearby streams and lakes. Because of its diffuse nature, nonpoint pollution is much more difficult to measure, characterize, and regulate. Typically, treatment of nonpoint pollution only occurs in newer residential or commercial areas via stormwater treatment facilities.

The accumulation of pollutants

Pollutants are generated from a variety of activities including the burning of fossil fuels, land clearing,

driving automobiles, and the spread of fertilizer and pesticides. Through these actions, we generate dust, heavy metals, petroleum hydrocarbons, and nutrients that are introduced into the environment. In the urban environment, these pollutants accumulate on our lawns, streets, roofs, driveways, and sidewalks. With the next rain, these pollutants are washed into nearby streams and lakes.

The movement of pollutants

A hard surface that prevents or restricts the infiltration of water to the underlying soil is defined as an impervious surface. Examples of impervious surfaces include roofs, walkways, patios, gravel roads, and highways. As the impervious surface area increases, the rate of flow or movement of water from that area increases.

(continued on page 4)



In the urban environment, pollutants accumulate on lawns, streets, driveways, and sidewalks. During a rainstorm, these pollutants are washed into nearby streams and lakes.


Should the LMD continue. . .

(continued from page 1)

watershed agreed to tax themselves to fund the LMD. Lakefront owners have paid two-thirds of the cost through annual assessments of \$196. Other property owners in the watershed have paid one third of the cost with annual assessments starting at \$38. In the next couple of months, the Board will need to establish a new work program and associated budget and rate structure if the LMD is to be extended.

So, what do you think?

Should the LMD be continued for another five years? Is the LMD doing the right things? Would you like the LMD to do less, or more? Would you be willing to continue paying the current rate to support the LMD, or less, or more? Please let us hear from you. Your comments will help determine whether we proceed with an election to reauthorize the LMD. We will report back to you what we hear from you in the next newsletter.

Take a few minutes to write, e-mail, or call us with your ideas or comments. The Board can be reached by calling board member, Bob White at 557-6798 or e-mailing him at ricewhite@hotmail.com. You can also write us, Attn: Sharon Walton at King County, WLRD, 201 S. Jackson, Suite 600, Seattle, WA 98104. 

Nature of nonpoint. . .

(Continued from page 3)

One of the primary ways urban watersheds differ from rural watersheds is in the amount of impervious surfaces present. In a rural watershed, the movement of water to surface waters is typically much slower. A notable exception is poorly maintained pastures with compacted soils where manure, germs, and soil can be washed into nearby streams, creating a rural nonpoint water quality problem.

Lake and stream impacts

Nonpoint pollution's impact to surface waters is initially less pronounced. Because of the diffuse nature of pollutants present in the runoff, individual pollutants enter at lower levels and initially, cause little changes in water quality. However, as

these pollutant levels continue to build up over time, the water quality impact increases, resulting in added plant and algal growth and the contamination of bottom sediments.

Protecting water quality

To reduce the impact of nonpoint pollution, many jurisdictions have adopted surface water management guidelines that emphasize the collection of stormwater runoff from impervious surfaces and the treatment of this water in a stormwater facility. You can do your part by leaving open spaces covered in vegetation whenever possible. Avoid creating extensive patios, roofs, and paved driveways. And remember to fix oil and transmission leaks as soon as possible. 🐾



KING COUNTY
Department of Natural Resources

Water and Land Resources Division
201 South Jackson Street, Suite 600
Seattle, WA 98104



Beaver Lake Monitor

The Beaver Lake Monitor is published by the Beaver Lake Management District Advisory Board with the assistance of King County Water and Land Resources Division.

Beaver Lake Management District Advisory Board:
Donna Carlson..... 557-8342
Joe McConnell..... 391-0661
Al Sauerbrey..... 392-3964
Lisa Shank..... 392-5010
Sharon Steinbis..... 557-5395
Bob White..... 557-6798

Newsletter staff

Editor..... Suzanne Rowe
Contributing Writers..... Sharon Walton, Bob White
To contact us:
Beaver Lake Monitor..... (206) 296-6519
c/o King County Department of Natural Resources
Water & Land Resources Division
201 South Jackson Street, Suite 600
Seattle, WA 98104

Email: sharon.walton@metrokc.gov
Web page: <http://splash.metrokc.gov/vlr>

Beaver Lake Web Page
<http://www.beaverlake.org>

BULK RATE
U.S. Postage
PAID
Seattle, WA
Permit No. 6013